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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/986,190 | 11/07/2001 | Takayuki Nimiya | OGW-0203 | 4895 |

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| EXAMINER |
| VIG, NARESH |

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| ART UNIT | PAPER NUMBER |
| 3629 | |

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,190

Applicant(s)

NIMIYA ET AL

Examiner

Naresh Vig

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20050114.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is in reference to response received on 14 January 2005 to the office action mailed on 23 November 2004. There are 13 claims, claims 13 – 25 pending for examination.

Response to Arguments

In response to applicant's argument that that cited reference Flag Telecom appears to show a copyright date of 2001. However, the above-identified application has an actual filing date of November 7, 2001 and an effective filing date of July 30, 2001. As a result, there is some question as to whether or not the copyright of 2001 shown on page 1 of Flag Telecom is, in fact, earlier than the actual or effective filing date of the above-identified application. Thus, the Office Action fails to show that the Flag Telecom reference is, in fact, prior art against the above-identified application.

Cited reference Flag Telecom has archive date which is embedded as part of URL in YYYYMMDD format. For example, page 7 has reference date of 19990507.

In response to applicant's argument that Flag Telecom arguably teaches that Flag offers customers the choice of buying or leasing capacity (Flag Telecom at page 6). However, Flag Telecom fails to show that the overhead cableway is the space bounded by the plastically deformable coil and fails to show that buying or leasing capacity

arguably taught in Flag Telecom is equivalent to renting or selling a portion of the overhead cableway.

In the disclosure originally filed 17 November 2001, applicant recites "overhead cableway capable of holding a plurality of overhead lines inside the spiral of the coil" [0007]. Applicant invention is creating an infrastructure using a spiral of the coil to create space (creating real estate in the form of space) which can be rented or purchased by a customer. Flag Telecom teaches creating an infrastructure using fiber cable and creating capacity (creating real estate in the form of capacity) which can be purchased or leased by a customer. Also, it is known to one of ordinary skill in the art that businesses have created infrastructures like towers to generate revenue by allowing customers to install their equipment by paying a compensation to the business who has the infrastructure.

In response to applicant's argument that the renting or selling of a portion of the space bounded by the plastically deformable coil is absent from within Flag Telecom. Chikri in view of Flag Telecom teaches coil. Argument for renting has been responded to earlier.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 – 20, and 22 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chikiri et al. US Patent 5,727,777 hereinafter known as Chikiri in view of Flag Telecom Limited hereinafter known as FlagTelecom.

Regarding claim 13, Applicant is building a overhead structure (product) which the applicant can be rented out or sold by the applicant. Method of constructing an overhead infrastructure using specific tools is a business and design choice. One of ordinary skill in the art can build the overhead infrastructure using different tools. The overhead structure built by one of ordinary skill in the art is the product which could be rented out or sold, and, applicant also claims a overhead structure (product) which is built to be rented out or sold. Chikiri teaches system and method for building the overhead infrastructure. Chikiri teaches:

installing a basic construction, said basic construction including utility poles, a tensile line drawn between said utility poles, a plastically deformable coil suspended by said tensile line, and an overhead cableway, said overhead cableway being the space bounded by said plastically deformable coil.

Chikiri does not teach renting or selling a portion of said overhead cableway to a business conductor, wherein an administrator rents or sells said portion to said business conductor. However, FlagTelecom teaches system and method of cableway. Flag Telecomm teaches the cable way can be leased or sold customers like Internet Service Providers [page 7]. In the disclosure originally filed 17 November 2001, applicant recites "overhead cableway capable of holding a plurality of overhead lines inside the spiral of the coil" [0007]. Applicant invention is creating an infrastructure using a spiral of the coil to create space (creating real estate in the form of space) which can be rented or purchased by a customer. Flag Telecom teaches creating an infrastructure using fiber cable an creating capacity (creating real estate in the form of capacity) which can be purchased or leased by a customer. Also, it is known to one of ordinary skill the art that businesses have created infrastructures like towers to generate revenue by allowing customers to install their equipment by paying a compensation to the business who has the infrastructure.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chikiri as taught by FlagTelecom to recover implementation costs by selling portions of the infrastructure, generate residual income by leasing the infrastructure.

Regarding claim 14, Chikiri in view of FlagTelecom teaches administrator (construction Manager) administrates said basic construction [FlagTelecom page 15].

Regarding claim 15, Chikiri in view of FlagTelecom teaches extending at least one overhead line along a overhead cableway.

Regarding claim 16, it would have been obvious to one of ordinary skill in the art at the time the invention was made that businesses are known to purchase or lease Right Of Way from property owners. For example, telephone utility company getting Right Of Way from a power utility company (telephone company to install their cable on electric company poles), power utility company getting Right Of Way from railway company (power utility company installing their own poles and cables). A business gets Right Of Way to save capital investment by purchasing real estate to install infrastructure, meet local jurisdiction rules and regulations, minimize the infrastructure construction costs. Chikiri teaches using a coil to create space through which a cable can be extended. Flag Telecom teaches that cable can be extended in space they are authorized to use. Chikiri in view of FlagTelecom teaches capability to have a business conductor (ISP) extends said at least one cable (design choice to elect how to install the cable) {overhead line if business elects to use utility poles e.g. local telecom, or, over the earth, under the ocean e.g. Flag Telecom} along said overhead cableway (authorized path) {overhead line if business elects to use utility poles e.g. local telecom, or, over the earth, under the ocean e.g. Flag Telecom} [Chikiri Fig. 1, 7 and disclosure associated with the Figures].

Regarding claim 17, as responded to earlier in response to claim 16, it would have been obvious to one of ordinary skill in the art at the time the invention was made that it is a business decision on who is responsible for managing the product installed. For example, in power utility company getting right of way from railway company, in some circumstances, it is the power utility company who manages the overhead line (product installed by power utility company). Although, Chikiri in view of FlagTelecom does not teach said business conductor manages said at least one overhead line, one of ordinary skill could have modified Chikiri in view of FlagTelecom and make the conductor manage their installed product to save on support expenses liability. Flag telecom does not teach to manage equipment customer connects using capacity acquired from Flag Telecom. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that business which acquires capacity from Flag Telecom has the responsibility of managing the equipment and what is transmitted over the acquired capacity.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chikiri in view of FlagTelecomm and make the conductor manage their installed product for Chikri in view of Flag Telecom to save on support expenses liability.

Regarding claim 18, it is a business choice to decide on fee structure. Chikiri in view of FlagTelecom teaches business conductor with rights for using said overhead cableway for rent or for sale with a fee according to a number and weight (business

choice on criteria for fee structure) of said at least one overhead line managed by said business conductor.

Regarding claim 19, Chikiri in view of FlagTelecom teaches plurality of overhead lines is extended along said overhead cableway.

Regarding claim 20, Chikiri in view of FlagTelecom does not teach prior to the step of installing said basic construction, the method further comprises estimating the number of overhead lines to be extended within said overhead cableway, and, estimating a maximum load supported by said overhead cableway, the weight for said number of said overhead lines and the distance between said utility poles being used to estimate said maximum load. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that business are known to make capacity planning, load capacity, space requirements, other physical capabilities for estimating requirements and designing to meet the requirements prior to starting a construction project.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chikiri in view of FlagTelecom and estimating the number of overhead lines to be extended within said overhead cableway, and, estimating a maximum load supported by said overhead cableway, the weight for said number of said overhead lines and the distance between said utility poles being used to estimate said maximum load.

Regarding claim 22, Chikiri in view of FlagTelecom teaches number is an integer greater than one [FlagTelecom, page 6].

Regarding claim 23, Chikiri in view of FlagTelecom teaches capacity (number) of their infrastructure [FlagTelecom, page 6].

Regarding claim 24, Chikiri in view of FlagTelecom does not teach said plastically deformable coil has a metal wire formed in a spiral shape and synthetic resin coated on a surface of said metal wire (how the plastically deformable coil is constructed). Method of constructing plastically deformable coil using specific material is a business and design choice. One of ordinary skill in the art can build plastically deformable coil using different material and still be able to perform the method of Chikiri in view of FlagTelecom and build plastically deformable coil has a metal wire formed in a spiral shape and synthetic resin coated on a surface of said metal wire to meet design requirement of the infrastructure.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chikiri in view of FlagTelecom and build plastically deformable coil has a metal wire formed in a spiral shape and synthetic resin coated on a surface of said metal wire to meet design requirement of the overhead infrastructure. For example, use plastic to minimize electric short circuit.

Claims 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chikiri et al. US Patent 5,727,777 hereinafter known as Chikiri in view of Flag Telecom Limited hereinafter known as FlagTelecom and Wettengel et al. US Patent 5,789,701 hereinafter known as Wettengel.

Regarding claim 21, Chikiri in view of FlagTelecom does not teach the tensile strength of said tensile line is based on said maximum load. However, Wettengel teaches tensile strength of said tensile line is based on said maximum load.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chikiri in view of FlagTelecom as taught by Wettengel to ensure that the cable does not break under load.

Chikiri in view of FlagTelecom and Wettengel teach plastically deformable coil is structurally adapted to support said number of said overhead lines.

Regarding claim 25, Chikiri in view of FlagTelecom and Wettengel does not teach the project implementation plan for the overhead infrastructure. However, Chikiri in view of FlagTelecom and Wettengel teach installation manager (one of the basic function of a construction manager is to generate and/or follow project plan), cables being installed on the poles.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to that Chikiri in view of FlagTelecom and Wettengel teaches step of installing said basic construction:

drawing said tensile line between said utility poles [Chikiri, Fig. 1 and disclosure associated with the Figure];

surrounding said tensile line axially with said plastically deformable coil [Chikiri, Fig. 7 and disclosure associated with the Figure];

attaching a portion of said plastically deformable coil to said tensile line with a cram member [Chikiri, Fig. 7 and disclosure associated with the Figure]; and

elongating said plastically deformable coil along said tensile line from said cram member toward one of said utility poles to form said overhead cableway [Chikiri, Fig. 7 and disclosure associated with the Figure].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 CFR '1.111 (c) to consider the references fully when responding to this office action.

1. Investigation into the Installation of Wireless Facilities in Highway Right-of-Way in Louisiana

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naresh Vig whose telephone number is (571) 272-6810. The examiner can normally be reached on M-F 7:30 - 6:00 (Wednesday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (571) 272-6812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Naresh Vig
Examiner
Art Unit 3629

August 20, 2005